

Please amend the claims as follows:

1. (currently amended) A method of transmitting data packets comprising:
transmitting data packets over a wireless network,

identifying a priority of each packet of a plurality of packets to be
transmitted;

selectively transmitting higher priority packets before transmitting lower
priority packets of the plurality of packets;

receiving the transmitted packets;

smoothing the received data packets; and

playing-out the smoothed packets,

wherein, the step of selectively transmitting is performed by calculating a
probability of higher priority packets being delivered prior to play-out times for the
higher priority packets and transmitting a packet only if this probability is greater
than a set threshold

and wherein calculating a probability of higher priority packets being
delivered prior to play-out times for the higher priority packets is performed by
estimating the success probability that a first data packet of the plurality of data
packets will be delivered before the play-out time for the first data packet.

2. (canceled)

3. (previously presented) The method of transmitting data packets of claim
1, wherein the step of selectively transmitting is performed based on channel
conditions of channels upon which the data packets are transmitted.

4. (previously presented) The method of data packet transmission of claim 1, wherein the step of smoothing the received data packets includes storing the received packets in a smoothing buffer and generating a transmission schedule, which includes the rates at which the data packets will be played-out.

5. (previously presented) The method of data packet transmission of claim 4, wherein generating the transmission schedule is performed based on a size of a buffer that will store received packets, available bandwidth and allowed play-out delay.

6. (previously presented) The method of data packet transmission of claim 4, wherein the transmission schedule is designed so that the smoothing buffer does not overflow or underflow during play-out of the received data packets.

7. (previously presented) The method of data packet transmission of claim 1, wherein the step of selectively transmitting performs transmission over wireless channels.

8. (previously presented) The method of data packet transmission of claim 1, wherein the set threshold is between 0.7 and 0.9.

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

13. (currently amended) A system for data packet transmission, the system comprising:

a central transmission unit including a unit controller coupled to a unit buffer and a unit transceiver, the unit buffer also being coupled to the unit transceiver, the unit buffer storing a plurality of data packets for selective transmission by the unit transceiver;

a wireless transmission channel that carries the plurality of data packets transmitted by the unit transceiver,

wherein, the unit controller controls selective transmission of the plurality of data packets from the unit transceiver along the wireless transmission channel to client equipment by determining the time remaining before a scheduled play-out time of a previously not transmitted packet and controls the unit transceiver and the unit buffer to transmit the previously skipped packet.

14. (previously presented) The system for data packet transmission of claim 13, wherein the plurality of data packets are video data packets.

15. (currently amended) The system for data packet transmission of claim 13, wherein the client equipment comprises:

a client transceiver that receives the selectively transmitted data packets from the unit transceiver along the wireless transmission channel;

a client equipment controller coupled to the client transceiver to control reception of the data packets;

a client smoothing buffer that stores the data packets under the control of the client equipment controller, a client smoothing buffer being coupled to the client equipment controller; and

a client data play-out mechanism that plays-out the data packets from the client smoothing buffer under the control of the client equipment controller, the client data play-out mechanism being coupled to the client equipment controller.

16. (previously presented) The system for data packet transmission of claim 15, wherein the unit controller generates the transmission schedule based on a size of the client smoothing buffer, available transmission channel bandwidth and allowed play-out delay.

17. (previously presented) The system for data packet transmission of claim 13, further comprising:

a server that provides the plurality of data packets;

a wired channel coupled to the server that carries the plurality of data packets to a wired network from the server, the wired channel also being coupled

to the central transmission unit to provide the plurality of data packets to the central transmission unit for transmission to the client equipment.

18. (previously presented) The system for data packet transmission of claim 13, wherein, the unit controller controls selective transmission of the data packets by calculating a probability of higher priority packets being delivered prior to play-out times for the higher priority packets and transmitting a packet only if its probability is greater than a set threshold.

19. (canceled)

20. (previously presented) The system for data packet transmission of claim 13, wherein the unit controller controls selective transmission by the unit transceiver based on conditions of the wireless channel upon which the data packets are transmitted.

21. (previously presented) The system for data packet transmission of claim 13, wherein the controller generates a transmission schedule, which includes the rates at which the data packets will be played-out by the client equipment.

22. (previously presented) The system for data packet transmission of claim 13, wherein the set threshold is between 0.7 and 0.9.

23. (cancel)